

# TPE

## 1 - Component Ink, Semi-gloss ink

### Application:

For printing onto untreated polypropylene. Due to various degrees of polymerization as well as contents of fillers the substrate polypropylene shows an undefined printability. Therefore printing tests in production conditions are absolutely necessary.

### Properties:

Ink type TPE is a normal speed drying ink system with a semi-glossy appearance. TPE ink has little elasticity and should be tested prior to printing on substrates that will be stretched or flexed. The mechanical resistance and chemical resistance of TPE inks are Ok.

### Adjustments:

#### Pad Printing:

Ink type TPE is adjusted with 10-20% Thinner depending on temperature and humidity.

#### Screen Printing:

Ink type TPE is adjusted with 15-25% thinner (primarily TPWD solvent). More thinner can be added if drying speed is too fast for the printing conditions.

NOTE: All of the below thinners can be blended to create different solvent evaporation speeds to suit your printing requirements.

#### Thinner Types:

Type	Evaporation Rate	Suitable inks	Characteristics
TPWA	1.0	All "K" ink -line pad printing inks.	Universal. Suitable for all pad printing inks.
TPWB	0.5	All "K" ink -line pad printing inks.	Fast drying solvent. Suitable for automatic production.
TPFA	5.0	All "K" ink -line pad printing inks.	Slow drying solvent.
POS/B	0.25	All "K" ink -line pad printing inks.	Very fast drying solvent also used with high speed automation printing.
TPWC	1.0	All "K" ink -line pad printing inks.	Aggressive solvent.
TPWD	25.0	All "K" ink -line pad printing inks.	Retarder. Used primarily in screen printing applications. 25 times slower than TPWA solvent.
CA262	0.6	Single component ink systems. With the exception of TPA/GL two component inks.	Fast drying solvent primarily used when printing on Acrylic, styrene or other plastics that have a tendency to craze or crack with other solvents.
/00 at the end of any of the solvents. Example: TPWA/00	Same as the original.	Same as the original.	Improves oxidation effect on metal cliché and or metal parts to be printed. NOTE: These thinners are only made on special requests and delivery time is longer.

### Drying:

Ink type TPE air dries, i.e. by evaporation of solvents. At room temperature (20-25°C ; 68-77° F). Drying time is approximately 10-15 minutes.

With heat application and air circulation the drying time is reduced.

It will take approximately 24 hours to completely cure even when adding heat.

### Cleaning:

For cleaning the stencils and tools our KJ-1525 cleaning thinner is suitable.

**Packaging:**

TPE inks are available in 1 liter (approximately 1.06 quarts) cans.

Color matched inks are packaged as 1 kg./cans only.

**Shelf Life:**

Non opened cans of TPE inks are good for 2 years.

Each can will have a mixed and recommended use by date printed on the label.

**Risk Information:**

Read material safety data sheets prior to processing.

The material safety data sheets according to 91/155/EWG contain marking in compliance with the regulation on dangerous working materials as well as instructions for precautions when processing, handling, waste disposal and storing as well as first aid.

TPE ink type color shades contain no heavy metals in their pigmentation and comply with the provisions of EN 71, part 3, safety of toys, migration of particular elements.

**Application Technology:**

If you have any further print or application-related questions, our application engineering team will be happy to help. Contact by

E-mail: [info@diverprint.com](mailto:info@diverprint.com) or call the home office: 704-583-9433.

**C-MIX 2000 Colors**

(12 color matching system)

Primrose	TPE/Y30		Violet	TPE/V50
Golden yellow	TPE/Y50		Blue	TPE/B50
Orange	TPE/O50		Green	TPE/G50
Scarlet	TPE/R20		Black	TPE/N50
Red	TPE/R50		White	TPE/W50
Magenta	TPE/M50		Clear varnish	TPE/E50

**Process Colors**

(according to Europe Scale)

Yellow	TPE/200
Magenta	TPE/201
Cyan	TPE/202

*The statements in our leaflets and safety data sheets are based on our present experiences, however they are no assurance of product properties and do not justify a contractual legal relationship. They serve to advise our business associates, but it is absolutely necessary to make your own printing tests under local conditions, with regard to the intended purpose prior to starting the job. - All former leaflets are no longer valid. April 2000 - Version No.1*

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